

IN THE CLAIMS

Please amend the claims as indicated below.

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1. (currently amended) A wayside rail lubrication apparatus for lubricating rails for the passage of trains having one or more locomotives constituting a consist pulling a plurality of load cars along the rails, the apparatus comprising:

a sensor associated with a first position on a rail for producing a lubrication signal when a locomotive pulling a plurality of load cars moves adjacent passes the first position; and

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a lubricant dispensing apparatus for applying a lubricant to the rail at a second position on the rail in response to the lubrication signal, the lubricant adapted to reduce the friction between wheels of the load cars and the rail, the first position and the second position being separated by a distance on the rail sufficient to prevent the lubricant from contacting any drive wheels wheel of the locomotive consist, whereby friction at the rail is reduced for the load cars of the train without loss of tractive effort of the locomotive consist on the rails.

2. (original) The wayside rail lubrication apparatus of claim 1, the lubricant dispensing apparatus further comprising:

a lubricant container for storing a volume of lubricant;  
a pump for delivering lubricant from the lubricant container to the rail; and  
a refilling device for adding lubricant to the lubricant container at no more than a predetermined rate.

3. (original) The wayside rail lubrication apparatus of claim 1, further comprising a bypass device for selectively preventing the lubricant dispensing apparatus from applying the lubricant in response to the lubrication signal.

4. (currently amended) The wayside rail lubrication apparatus of claim 1, further comprising a means for controller terminating the application of the lubricant to the rail by the lubricant dispensing apparatus before a number of the load cars at a rear of the train pass the second position.

5. (currently amended) A wayside rail lubrication apparatus for lubricating rails for the passage of trains along the rails, the apparatus comprising:

a detection apparatus for providing a lubrication signal in response to the presence of a vehicle train on a rail adjacent the detection apparatus;

a lubricant dispensing apparatus for applying a lubricant to the rail in response to the lubrication signal to reduce friction on the train on the rails; and

a bypass device for selectively preventing operation of the lubricant dispensing apparatus from applying the lubricant in response to the lubrication signal under circumstances in which the addition of lubricant onto the rails is undesirable.

6. (currently amended) The wayside rail lubrication apparatus of claim 5, wherein the bypass device comprises a communication device located in/on the vehicle for controlling the bypass device from the vehicle.

7. (original) The wayside rail lubrication apparatus of claim 5, wherein the bypass device comprises a remote signal reception device for receiving a signal from a remote location for controlling the bypass device.

8. (currently amended) The wayside rail lubrication apparatus of claim 5, wherein the bypass device comprises an environmental sensor generating a signal to the bypass device for preventing the lubricant dispensing apparatus from applying the lubricant in response to a predetermined environmental condition.

Claims 9-11 (cancelled).

12. (currently amended) A wayside rail lubrication apparatus for lubricating rails for the passage of trains having one or more locomotives constituting a consist pulling a plurality of load cars along the rails, the apparatus comprising:

a dispenser means for applying lubricant to a rail in response to the presence of a vehicle wheel at a location on the rail; and

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a timing means for delay apparatus associated with the dispenser means for applying lubricant for delaying the application of lubricant for a predetermined time period after the vehicle wheel moves adjacent to is present at the location on the rail, with lubricant being applied to the rails only after drive wheels of the locomotive consist have moved past the dispenser, whereby friction at the rail is reduced for the load cars without loss of tractive effort of the locomotive consist on the rails.

13. (currently amended) The wayside rail lubrication apparatus of claim 12, wherein the timing delay apparatus means for delay comprises a lubricant pump and a conduit for flow of lubricant downstream of the pump which presents a volume to be filled with lubricant before lubricant is discharged to the rail an empty volume downstream of a lubricant pump.

14. (currently amended) A wayside rail lubrication apparatus for lubricating rails for the passage of trains having one or more locomotives constituting a consist pulling a plurality of load cars, the apparatus comprising:

a sensor for producing a lubrication signal responsive to the presence of a train on a rail, the train comprising a locomotive pulling a plurality of load cars; and

a dispenser means for applying a lubricant to a section of the rail in response to the lubrication signal only after the locomotive has passed the section of rail to prevent the lubricant from contacting any wheel of the locomotive consist, whereby friction at the rail is reduced for the load cars of the train without loss of tractive effort of the locomotive consist on the rails.

15. (currently amended) The wayside rail lubrication apparatus of claim 14, wherein the dispenser means for applying further comprises a timing circuit timer for delaying a start of application of the lubricant to the section of rail for a predetermined time period after generation of the lubrication signal.

16. (currently amended) The wayside rail lubrication apparatus of claim 14, further comprising:

a sensor means for detecting an end of the train; and  
a controller means for terminating the application of lubricant to the section of rail before the end of the train passes the section of rail.

17. (currently amended) A method of applying lubricant to a rail for lubricating the rail for the passage of a succession of trains along the rail, the method comprising:

applying a first quantity of lubricant to a rail at a first time in response to the presence of a first train at a location along the rail-vehicle;  
sensing the presence of a second train rail-vehicle at the location at a second time; and

applying a second quantity of lubricant to the rail at a second time in response to the presence of the a-second train rail-vehicle at the location, with the second quantity of lubricant applied at the second time being responsive to the time span between said the first time and the second times.

18. (currently amended) The method of claim 17, further comprising applying no zero quantity of lubricant at for the second time quantity if the time span has not exceeded a predetermined minimum.

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19. (currently amended) A method of applying lubricant to a rail for lubricating the rail for the passage of trains each having one or more locomotives constituting a consist, the consist located at a head of train at a leading end of the train, and an end of train at a trailing end of the train as the train travels along the rail, the method comprising:

sensing the presence of a train on a rail;

applying a lubricant to a section of the rail in response to the presence of the train after the consist a locomotive at a the head of the train has passed the section of rail; and

terminating the application of lubricant to the section of rail before an end of the train passes the section of rail so that the quantity of lubricant on the section of rail is dissipated reduced by wheels of a plurality of cars proximate the end of the train.

20. (original) The method of claim 19, further comprising:  
detecting the end of the train proximate a position of the rail a predetermined distance from a position of a lubricant applicator; and  
terminating application of the lubricant by the lubricant applicator in response to the detection of the end of the train.